

Parameter	Sample Container (1)	Container Volume	Preservation (2)	Maximum Holding Time	Analytical Methodology	Sample Container Cleaning
Phenols	G, amber, teflon lined screw cap	1 liter	Cool, 4 deg C, 0.008% $\text{Na}_2\text{S}_2\text{O}_3$ if residual Cl	Extraction 7 days Analysis - 40 days from extraction	40 CFR 136: GC-604 GC/MS-625, 1625	(11)
Polynuclear Aromatic Hydrocarbon	G, amber teflon lined screw cap	1 liter	Cool, 4 deg C, dark, 0.008% $\text{Na}_2\text{S}_2\text{O}_3$ if residual Cl	Extraction 7 days Analysis - 40 days from extraction	40 CFR 136: GC-610 HPLC-610 GC/MS-625, 1625	As Above
Benzidines	As Above	As Above	Cool, 4 deg C, 0.008% $\text{Na}_2\text{S}_2\text{O}_3$ if residual Cl	Extraction 7 days Analysis - 7 days if storage has inert atmosphere	40 CFR 136: GC/MS-625, 1625 HPLC-605	(11)
Phthalate Esters	As Above	As Above	Cool, 4 deg C	Extraction 7 days Analysis - 40 days from extraction	40 CFR 136: GC-607 GC/MS-625, 1625	(11)
Nitrosamines	As Above	As Above	Cool, 4 deg C, dark, 0.008% $\text{Na}_2\text{S}_2\text{O}_3$ if residual Cl	As Above	40 CFR 136: GC-607 GC/MS-625, 1625	(11)

Parameter	Sample Container (1)	Container Volume	Preservation (2)	Maximum Holding Time	Analytical Methodology	Sample Container Cleaning
Chlorinated Pesticides and PCBs	G, amber, teflon lined screw cap	1 liter	Pesticides-Cool, 4 deg, pH adjustment to 5-9 PCBs - Cool, 4 deg C Aldrin-Cool, 4 deg C, 0.008% Na ₂ S ₂ O ₃ if residual Cl, pH adjust to 5-9	Extraction 7 days Analysis - 40 days from extraction	40 CFR 136: GC-608 GC/MS-625	(11)
Nitroaromatics and isophorone	As Above	As Above	Cool, 4 deg C, dark 0.008% Na ₂ S ₂ O ₃ if residual Cl	As Above	40 CFR 136: GC-609 GC/MS-625, 1625	(11)
Haloothers	As Above	As Above	Cool, 4 deg C, dark, 0.008% Na ₂ S ₂ O ₃ if residual Cl	As Above	40 CFR 136: GC-609 GC/MS-625, 1625	(11)
Haloothers	As Above	As Above	Cool, 4 deg C, 0.008% Na ₂ S ₂ O ₃ if residual Cl	As Above	40 CFR 136: GC-611 GC/MS-625, 1625	(11)
Chlorinated Hydrocarbons	Extractable Methods - as above Purgeable Methods-G, teflon lined septum	Extract. methods - as above Purgeable methods-25 ml or larger	Cool, 4 deg C	Extractable methods - as above Purgeable methods - 14 days	40 CFR 136: GC-601,602, 611,612 GC/MS-624, 1624,625, 1625	Extractable methods - (11) Purgeable methods - (4)

<u>Parameter</u>	<u>Sample Container (1)</u>	<u>Container Volume</u>	<u>Preservation (2)</u>	<u>Maximum Holding Time</u>	<u>Analytical Methodology</u>	<u>Sample Container Cleaning</u>
2,3,7,8-TCDD	As Above Extractable	As Above Extract.	Cool, 4 deg C, 0.008% Na ₂ S ₂ O ₃ if residual Cl	As Above Extractable	40 CFR 136: GC/MS-613	As Above

FOOTNOTES

P=Polyethylene G=Glass

2. $\text{Na}_2\text{S}_2\text{O}_3$ =Sodium thiosulfate

HNO_3 =Nitric acid

Cl=Chlorine

NaOH =Sodium Hydroxide

HCl =Hydrochloric acid

H_2SO_4 =Sulfuric acid

EDTA=Ethylenediaminetetraacetic acid

3. USEPA Statement of Work for Sample Container Repository, 4/85, Attachment A.

4. Detergent wash. Tap water rinse. Distilled water rinse. Dry at 105 deg C.

5. SW-846, 3rd edition, Volume 1-B, Sec 4.1.4.

6. Sample container cleaning procedure is not specified.

7. Washed. Rinse with extraction solvent (Fluorocarbon 113).

8. Detergent, hot water wash. Hot tap water rinse. ASTM Type II water rinse (No copper tubing). Sterilize in autoclave at 121 deg C for 15 minutes.

9. Detergent wash. Tap water rinse. 1:1 HNO_3 rinse. Tap water rinse. 1:1 HCl rinse. Tap water rinse. ASTM Type II water rinse.

10. Chromate cleaning solution. Detergent wash, hot. Tap water rinse. Distilled water rinse. Drain dry. Muffle furnace, 400 deg C for 15-30 minutes. Seal and store free from dust.

11. Detergent wash, hot. Hot tap water rinse. Drain dry. Muffle furnace at 400 deg C for 15-30 minutes. Acetone rinse followed by hexane rinse can be substituted for muffle furnace. Store inverted or capped with foil.

12. Sample Container volume is not specified in methodology. Volume is recommended by NJDEP - Bureau of Environmental Measurements and Quality Assurance.

In general the following quality control requirements apply to all samples:

Analysis of an appropriate blank with every set.

Analysis of at least one standard at midrange concentration (preferably an additional standard near the detection level).

Annual analysis of external reference samples.

Annual analysis of split or double blind samples.

Determination of a detection limit for each method and parameter.

Laboratories must keep record of the following information:

Date, title, analytical method name and reference,
Time of analysis,
Details of methods not specified in referenced procedures,
Sample numbers,
All raw data (measurements),
Calculations,
Results,
Equipment Used and instrumental parameters, and
Analyst signature or initials.

QC data must be reported with the analytical results.

Laboratories performing analyses must provide information, upon request, on instruments employed and their procedures for evaluating and maintaining this equipment.

APPENDIX E

AT&T WATER DISCHARGE PERMIT

AT&T Bell Laboratories

Subject: CWSTS Renovation Project
Decontamination Water Disposal

Date: 27 August 1990

From: P. M. Dowd
77874
IH 8B-110
X 9-4649

F. Girdwain:

The results of the analyses performed by WESTON on samples of the decontamination water generated from the washing and rinsing of the existing drain lines from Building 2 and Buildings 5 & 6 have been reviewed and are attached for reference.

Four samples of the decontamination water were collected as follows:

Tap Water	- decontamination water supply,
Decon 2	- rinsate water from Buildings 5 & 6,
Decon 3	- rinsate water from Building 2, and
Frac Tank Water	- composite of rinsate water collected from the temporary storage tank.

The analytical data provide no indication of contamination in either of the samples obtained from the individual buildings or in the composite sample obtained from the temporary storage tank. Consequently, decontamination of the existing drain lines to be abandoned in place is considered complete and no further decontamination is required.

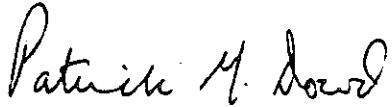
Section II(K)(3) of the draft Part B Permit issued by IEPA to AT&T BL requires AT&T BL to manage all wastes generated from closure activities to be managed as a hazardous waste unless AT&T BL can document that the material is not hazardous as defined in 35 IAC 721.103. This section of the Illinois Administrative Code defines hazardous waste. Based on the attached analytical data, the decontamination water does NOT meet the definition of a hazardous waste and may be handled as Special Waste.

The analytical results were compared to the discharge restrictions contained in Naperville's Sewer Use Ordinance. Section 8-2B-11 regulates the characteristics of wastes that maybe discharged to the sanitary sewer. Based on the attached analytical data, the decontamination water does NOT exceed any of the requirements for discharge to the sanitary sewer. However, Section 8-2B-11(9)(9.4) prohibits the discharge of wastes constituting "slugs". The contents of the temporary storage tank may be discharged over an extended time period to ensure compliance with this provision.

27-Aug-90

Therefore, based on review of the applicable regulations and the analytical data, EMD recommends that the decontamination water be discharged to the sanitary sewer.

If you have any questions, please call me.


Patrick M. Dowd, P.E.

Attachment
IH-77874-PMD:pmd

Copy to:

W. Thornton w/attachment
R. Dinsmore w/out attachment
J. Jones/File IH-400-900827 w/attachment

APPENDIX F
AT&T SOIL SAMPLING PLAN

Attachment 1

Soil Sampling Plan
for the
Assessment of the Concentrated Waste Underground Piping
at
Indian Hill Facility, Naperville, Illinois

1.0 General

The following sampling plan has been designed to provide analytical information necessary to assess the condition of existing underground piping used to convey concentrated wastes to the on-site Concentrated Waste Storage Tank (CWST).

Previous assessments made of the CWST system include certification by an independent Professional Engineer, licensed by the State of Illinois, of the vaulted CWST system, and pressure testing of all underground piping outside of buildings. The engineering assessment was performed in 1989, and the pressure testing was conducted in 1988.

This sampling plan will consist of sampling of subsurface soils along the underground piping beneath the Buildings Nos. 2, 5, & 6, and also along underground piping outside Building No. 5. Sampling of the subsurface soils will provide analytical evidence that the underground piping adequately contained the concentrated waste and does not pose a threat to public health or the environment.

2.0 Environmental Setting

2.1 General information

The Indian Hill facility is located within the Office, Research and Light Industry; and Research and Development zoning areas of Naperville, Illinois. The facility occupies approximately 195 acres. Site features include the Main Building, which includes module buildings, a service building, a vaulted Concentrated Waste Storage Tank (CWST) System, Containerized Waste Storage Building, and a stormwater detention basin. Surrounding land uses include residential developments, forest preserve, and commercial and industrial uses. The Indian Hill facility is engaged in communications-related research and development as a primary activity. Additional activities include both office and support service functions. This facility currently employs approximately 4,100 personnel.

2.2 Site Specific

2.2.1 Project Description

The CWST and piping system is currently being used to collect wastewaters from the PC and Thin Film research and development laboratories. The major volume of wastes being managed by the CWST system meet the RCRA definition of hazardous waste because of their corrosive characteristics (D002, 40 CFR 261.22). However, the contents of the CWST exhibit the characteristics of a special waste. By volume, most of the corrosive wastes to be discharged to the CWST system are spent caustic developer baths, spent acid etchant, spent ammonia etchant, electroless copper baths, acid baths and rinse water from printed circuit board fabrication in the PC Shop. Temperature and pH of these wastes is provided in Table A.

The CWST system piping is constructed of schedule 80 polypropylene pipe. Polypropylene combines high chemical resistance with strength at a wide range of operating temperatures. The recommended temperature for polypropylene pipe is 0 to 200 degrees F. The approximate operating conditions for the CWST system piping is in the range of 40 to 60 degrees F. Waste temperatures are not reported to exceed 135 degrees F.

The polypropylene pipe is resistant to most organic and inorganic chemicals. In particular it is rated as good for weak acids, strong acids, weak alkalis, strong alkali, organic solvents <1,000 ppm, and sulfur dioxide (aggressive gas). The pipe is rated as fair for mixed acids and organic solvents >1,000 ppm. The pipe is recommended for oxidizing acids and chlorine gas (aggressive gas).

Table A
Chemical Profile

Part	% Volume	Temp (Deg. F)	pH	Major Hazardous Chemical (% weight)
Developing Solution	45	Ambient	>12	Glycols, Polyglycols
Developer KB1-A	41			Potassium carbonate 20-30%
Photoposit Remover 112A	4			Ethanolamine 15%
Etchant	22	115	<2	Copper 8.3%, Hydrogen Peroxide 10%, Thiourea, Sulfate 15%
Presposit Etch 746	19			
Enplate AD-481	3			Sulfuric Acid 50%
Rinse Waters	19	Ambient	Variable	Composition of rinse water is highly variable.
Acid Baths	8	Ambient	<2	Sulfate, Fluoborate, Nitrate, Chloride
Sulfuric Acid (10%)	2			Sulfuric Acid 10%
Other Acids	5			Mixed
Cleaner 1110A	1			NA
Ammonia Etchant	4	135	Acid/Neutral	
Neutral Etch V1 and V2	2			Ammonium nitrate 15%, ammonia 0.5%, ethanolamine 15%
Solder Brite	1			Hydrochloric acid 8%
Ammonia Hydroxide	1			Ammonia Hydroxide
Electroless Copper Bath	3	120	Basic	
Depositor (Cuposit A/Q/C)				Formaldehyde 5-10%, sodium hydroxide 5%

Acids which can be oxidizing require barrier conditions of temperature and concentration before they act as oxidizers. For the oxidizing acids to be carried by the CWST system, both temperature and concentration are below their barrier conditions of oxidation. It is important to note that in all cases, acids will be flushed to the CWST system with varying amounts of rinse water, which means the diluted acid contact time within the pipe will be minimal.

The total length of piping to be assessed during this sampling is as follows:

Location	Length in Feet
Building No. 2	220
Building Nos. 5 & 6	290
Outside Buildings	235

Total	745

2.2.2 Site Soils

Based on structural soil boring logs the Indian Hill facility is generally underlaid with very tough to hard silty clay, with a trace of sand and gravel down to a depth of approximately 55 feet below the ground surface. Regional water table in the area appears at a depth of 55 to 60 feet below ground surface.

3.0 Areas of Potential Environmental Concern and Sampling Activities

3.1 General

The main concern is to confirm the integrity of the CWST system's underground piping. In order to access the potential for leakage to subsurface soils, 17 soil samples are proposed to be taken along the length of the piping at predetermined points. Also, one background soil sample is proposed to be taken for comparison with the environmental survey samples. This sampling is for general survey of the underground piping to confirm the integrity of the system during its use.

3.2 Media to be Sampled

It is planned to take 17 soil samples, and 1 background soil samples, along the CWST system underground piping. Currently AT&T Bell Laboratories has no reason to believe that any leakage of wastes had occurred. The greatest potential for leakages would be at the pipe joints. The proposed sample locations are at cleanouts, floor drains, and riser connections where there are at least two joints. Also, locating sample locations near these fixtures will make it easier to locate potentially affected areas while minimizing the potential for damage to the underground piping during sampling. If leakages have occurred under the facility it is believed that contaminants (i.e. metals) would have been attenuated by natural processes in the extensive silty clay layer underlying the facility. Therefore this sampling will be limited to only sampling of the soils.

3.3 Sampling Frequency and Locations

One set of 17 grab soil samples are to be taken for assessment purposes to determine the integrity of the underground piping. An additional soil sample is to be taken to document background conditions. Sample locations are shown in the attached Proposed Sample Location Map.

3.4 Sampling Depths

Sampling depths for this set of soil samples is summarized in Table B. All soil samples will be taken below the pipe bedding material when possible. Each grab sample will be collected over a 6 inch increment.

The background soil sample depth is to correspond with other samples collected at the site. Background soil samples should also correspond with the soil types for other samples.

3.5 Analytical Parameters

Table C summarizes the target compounds to be analyzed for in this set of samples. One out of every four samples will be tested for every parameter listed in Table C, the remaining samples will be tested for a shortened list of target compounds also indicated in Table C.

Table B
Sampling Plan Summary Table
Page 1 of 2

Sample Location	Matrix	Proposed Sample Depth (feet)	Analytical Parameters

Building No. 2			

S-1	Soil	4.25-4.75	Complete Target Compound List
S-2	Soil	4.5-5.0	Shortened Target Compound List
S-3	Soil	2.75-3.25	Complete Target Compound List
S-4	Soil	2.0-2.5	Shortened Target Compound List
S-5	Soil	3.25-3.75	Shortened Target Compound List
S-6	Soil	2.5-3.0	Shortened Target Compound List
Outside Buildings			

S-7	Soil	9.0-9.5	Shortened Target Compound List
S-8	Soil	8.75-9.25	Shortened Target Compound List
S-9	Soil	8.0-8.5	Complete Target Compound List
S-10	Soil	7.25-7.75	Shortened Target Compound List
S-11	Soil	6.5-7.0	Shortened Target Compound List
S-12	Soil *	6.5-9.5	Complete Target Compound List
Building Nos. 5 & 6			

S-13	Soil	2.0-6.0	Complete Target Compound List
S-14	Soil	2.0-6.0	Shortened Target Compound List
	Soil	2.0-6.0	Shortened Target Compound List
	Soil	2.0-6.0	Shortened Target Compound List
S-17	Soil	2.0-6.0	Complete Target Compound List
S-18	Soil	2.0-6.0	Shortened Target Compound List
Quality Assurance/Quality Control Samples			

IN-1	Water	N/A	Complete Target Compound List
RIN-2	Water	N/A	Complete Target Compound List
RIN-3	Water	N/A	Complete Target Compound List
BLK-1	Water	N/A	Volatile Organic Compounds Only
BLK-2	Water	N/A	Volatile Organic Compounds Only
TBLK-3	Water	N/A	Volatile Organic Compounds Only
BLK-4	Water	N/A	Volatile Organic Compounds Only
BLK-5	Water	N/A	Volatile Organic Compounds Only
TBLK-6	Water	N/A	Volatile Organic Compounds Only
TBLK-7	Water	N/A	Volatile Organic Compounds Only

Sample Location	Matrix	Proposed Sample Depth (feet)	Analytical Parameters

Closure Samples			

DECON-1	Water	N/A	Complete Target Compound List
DECON-2	Water	N/A	Complete Target Compound List
DECON-3	Water	N/A	Complete Target Compound List
Waste Analysis			

WASTE-1	Water	N/A	Complete Target Compound List
WASTE-2	Dry Waste	N/A	Complete Target Compound List

DECON Denotes background soil sample.
 DECON Denotes sample of final rinsewater after decontamination.
 Denotes soil sample.
 Denotes field blank composite taken on all sampling equipment.
 TBLK Denotes trip blank.
 WASTE Denotes sample of wastes generated during decontamination activities.

Note: The actual depth of underground piping in Buildings 5 & 6 must be verified by the contractor. All soil samples must be taken below the piping and bedding material.
 The actual number of QA/QC samples will be dependent upon sampling schedule.

Table C
List of Analytical Parameters

Parameter	Units	Complete List	Shortened List
=====			
1. Volatile Organics			
Acetone	UG/L	X	
2. Acrolein	UG/L	X	
3. Acrylonitrile	UG/L	X	
Benzene	UG/L	X	
Bis(chloromethyl) ether	UG/L	X	
6. Bromoform	UG/L	X	
Carbon Tetrachloride	UG/L	X	
Chlorobenzene	UG/L	X	
9. Chlorodibromomethane	UG/L	X	
10. Chloroethane	UG/L	X	
1. 2-Chloroethylvinyl Ether	UG/L	X	
12. Chloroform	UG/L	X	
13. Dichlorobromomethane	UG/L	X	
1. Dichlorodifluoromethane	UG/L	X	
15. 1,1-Dichloroethane	UG/L	X	
16. 1,2-Dichloroethane	UG/L	X	
17. 1,1-Dichloroethylene	UG/L	X	
1. 1,2-Dichloropropane	UG/L	X	
19. 1,3-Dichloropropylene	UG/L	X	
20. Ethylbenzene	UG/L	X	
21. Methyl Bromide	UG/L	X	
22. Methyl Chloride	UG/L	X	
23. Methylene Chloride	UG/L	X	
1. 1,1,2,2-Tetrachloroethane	UG/L	X	
1. Tetrachloroethylene	UG/L	X	
26. Toluene	UG/L	X	
27. 1,2-trans-Dichloroethylene	UG/L	X	
1. 1,1,1-Trichloroethane	UG/L	X	
29. 1,1,2-Trichloroethane	UG/L	X	
30. Trichloroethylene	UG/L	X	
1. Trichlorofluoromethane	UG/L	X	
32. Vinyl Chloride	UG/L	X	
Plus largest 15 purgeable volatile organic peaks			

Acid Extractable Compounds

1. 2-Chlorophenol	UG/L	X
34. 2,4-Dichlorophenol	UG/L	X
25. 2,4-Dimethylphenol	UG/L	X
16. 4,6-Dinitro-o-cresol	UG/L	X
37. 2,4-Dinitrophenol	UG/L	X
38. 2-Nitrophenol	UG/L	X
1. 4-Nitrophenol	UG/L	X
40. p-Chloro-m-cresol	UG/L	X
41. Pentachlorophenol	UG/L	X
1. Phenol	UG/L	X
1. 2,4,6-Trichlorophenol	UG/L	X
Plus largest 10 acid extractable peaks		

Table C.
List of Analytical Parameters
(Continued)

Parameter	Units	Complete List	Shortened List
Base/Neutral Extractable Compounds			
43 Acenaphthene	UG/L	X	
44 Acenaphthylene	UG/L	X	
45 Anthracene	UG/L	X	
46 Benzidine	UG/L	X	
47 Benzanthracene	UG/L	X	
48 Benzopyrene	UG/L	X	
49 3,4-Benzofluoranthene	UG/L	X	
50 Benzoperylene	UG/L	X	
51 Benzofluoranthene	UG/L	X	
52 Bis(2-chloroethoxy)methane	UG/L	X	
53 Bis(2-chloroethyl)Ether	UG/L	X	
54 Bis(2-chloroisopropyl)Ether	UG/L	X	
55 Bis(2-ethylhexyl)Phthalate	UG/L	X	
56 4-Bromophenyl Phenyl Ether	UG/L	X	
57 Butylbenzyl Phthalate	UG/L	X	
58 2-Chloronaphthalene	UG/L	X	
59 4-Chlorophenyl Phenyl Ether	UG/L	X	
60 Chrysene	UG/L	X	
61 Dibenzanthracene	UG/L	X	
62 1,2-Dichlorobenzene	UG/L	X	
63 1,3-Dichlorobenzene	UG/L	X	
64 1,4-Dichlorobenzene	UG/L	X	
65 3,3'-Dichlorobenzidine	UG/L	X	
66 Diethyl Phthalate	UG/L	X	
67 Dimethyl Phthalate	UG/L	X	
68 Di-n-butyl Phthalate	UG/L	X	
69 2,4-Dinitrotoluene	UG/L	X	
70 2,6-Dinitrotoluene	UG/L	X	
71 Di-n-octyl Phthalate	UG/L	X	
72 1,2-Diphenylhydrazine (as azobenzene)	UG/L	X	
73 Fluoranthene	UG/L	X	
74 Fluorene	UG/L	X	
75 Hexachlorobenzene	UG/L	X	
76 Hexachlorobutadiene	UG/L	X	
77 Hexachlorocyclopentadiene	UG/L	X	
78 Hexachloroethane	UG/L	X	
79 Indenopyrene	UG/L	X	
80 Isophorone	UG/L	X	
81 Napthalene	UG/L	X	
82 Nitrobenzene	UG/L	X	
83 N-Nitrosodimethylamine	UG/L	X	
84 N-Nitrosodi-n-propylamine	UG/L	X	
85 N-Nitrosodiphenylamine	UG/L	X	
86 Phenanthrene	UG/L	X	
87 Pyrene	UG/L	X	
88 1,2,4-Trichlorobenzene	UG/L	X	
Plus largest 15 base/neutral extractable peaks			

Table C
List of Analytical Parameters
(Continued)

Parameter	Units	Complete List	Shortened List
=====			
Toxic Pollutants: Metals, Cyanide, and Phenols			
Antimony, Total	UG/L	X	X
90 Arsenic, Total	UG/L	X	X
91 Beryllium, Total	UG/L	X	X
92 Cadmium, Total	UG/L	X	X
93 Chromium, Total	UG/L	X	X
94 Copper, Total	UG/L	X	X
95 Lead, Total	UG/L	X	X
96 Mercury, Total	UG/L	X	X
97 Nickel, Total	UG/L	X	X
98 Selenium, Total	UG/L	X	X
99 Silver, Total	UG/L	X	X
100 Thallium, Total	UG/L	X	X
101 Zinc, Total	UG/L	X	X
102 Cyanide, Total	UG/L	X	
103 Phenol, Total	UG/L	X	
Conventional and Nonconventional Pollutants			
104 Chemical Oxygen Demand	MG/L	X	
105 Corrosivity	N/A	X	
106 Cyanide, Reactive	UG/L	X	
107 Isopropyl Alcohol	UG/L	X	
108 Nitrogen, Ammonia	MG/L	X	
109 pH	S.U.	X	
110 Sulfide, Total	UG/L	X	
111 Sulfide, Reactive	UG/L	X	
112 Total Organic Carbon (TOC)	MG/L	X	
113 Total Organic Halides (TOX)	MG/L	X	
114			

4.0 Quality Assurance/Quality Control

4.1 General

In order to generate analytical data of known and defensible quality, adherence to establish quality assurance protocol is necessary. This will ensure that samples obtained in the field are representative of the particular environment from which they have been collected and are of satisfactory quality to meet the project objectives.

4.2 Sampling Method

The following sampling methods will be used for this sampling event:

Sampling within the building must be conducted using a cement coring machine to cut through cement flooring. A minimum of 6-inch diameter size bits should be used to make openings in the concrete floors. The concrete floor will be washed with a non-phosphate detergent plus a tap water rinse to remove all surface contamination prior to coring. The bit will be decontaminated prior to every use by washing with soapy water solution and then followed with a deionized water rinse. All water used to cool the coring bit should be tap water which is relatively free of any organic or inorganic contaminants. The use of cooling water will be kept at the minimum amount necessary to operate the coring machine. Measures will be taken to prevent the draining of cooling water from entering the core hole and contaminating the underlying soils. Soil samples will be obtained through the core hole by the use of cleaned sampling equipment. Sampling equipment may include split spoons, hand augers, steel trowels, and stainless steel bowls. Each piece of sampling equipment must be decontaminated before each new sample location and prior to sampling the designated soil strata. All sampling equipment should be constructed of stainless steel. All equipment shall be decontaminated according to the following procedure:

1. Non-phosphate detergent plus tap water wash.
2. Tap water rinse.
3. Distilled/deionized water rinse.
4. 10% Nitric acid rinse (trace metal or higher grade Nitric Acid diluted with distilled/ deionized water).
5. Distilled/deionized water rinse.
6. Methanol (pesticide grade) rinse.
7. Total air dry or pure nitrogen blow out.
8. Distilled/deionized water rinse.

All decontaminated sampling equipment shall be stored and handled in a manner to prevent contamination. Information concerning the decontamination methodology, date, time, and personnel should be recorded in the field log book.

Either a drill rig or a backhoe may be used for subsurface soil sampling outside the buildings. The entire drill rig or backhoe will be steam cleaned prior to use on site. After the initial washing, cleaning may be reduced to those areas that are in close proximity to material being excavated. All down-hole equipment or the backhoe bucket and extension arm must be thoroughly decontaminated prior to each boring location or excavation location. The operator will be directed to bore or excavate in locations that permit the obtaining of representative samples in close range (i.e. 1 to 2 feet) to the existing underground CWSTS piping. Samples will be obtained at an appropriate depth (e.g. approximately 1 foot below piping) with regard to the depth of underground piping. It is the responsibility of the Environmental Engineering Management Contractor (EEMC) to verify all locations and depths of underground piping prior to conducting borings or excavations. All material removed from bore holes or excavations shall be placed on a tarp. If excavated test pits are shallow (based on OSHA regulations) the sampler can enter the pit and collect the soil sample using decontaminated sampling equipment. As the pit gets deeper the sampler may collect the soil sample using an extended handle soil auger. If this is not possible, the soil sample may be collected from the bucket of the backhoe in an area where the sample material is not in contact with the bucket. The sample should be transferred from the bucket directly into the sample container using a decontaminated trowel. Samples shall be collected from bore holes using decontaminated sampling devices (e.g. split spoon, Shelby Tube). Upon retrieval the split spoon should be opened, its contents logged, and then immediately transferred into a sample bottle using a decontaminated spatula or spoon. If a Shelby tube is utilized it should be properly sealed and prepared for shipment. All sampling equipment shall be decontaminated in accordance with the method described previously. All areas disturbed by the sampling activities shall be restored to their original condition which existed prior to sampling.

During sampling, all activities will be recorded in a log book to provide an accurate record of the sampling event and the procedures followed. Entries made by sampling personnel in the log book include:

- Project Name/Purpose
- Date
- Field Observations (Weather, etc.)
- Description of Sampling (Diagram if Necessary)
- Sample Label Information (Analytical Parameters, Preservation, etc.)
- Field Measurements
- Signature
- Intended Handling of Sample; Chain of Custody Form Number

Sampling logs of each sampling point are to be prepared and include as a minimum:

- Date/Time/Weather
- Sampler/Geologist/Soil Scientist Names
- Sample Point Identification
 - (including Location, Matrix, and Sample Depth)
- Sketch Showing the Sampling Point Location
 - (including Reference Distances)
- Depth to Water and/or Bedrock (Refusal) When Encountered
- Soil Profile
- Sample Recovery (and Portion Submitted for Analysis)
- Sampling Equipment Used
- Field Measures (Where Appropriate)
- General Comments (e.g. Odor, Staining, etc.)

A field blank composite sample will be taken of every type of sampling equipment, (i.e. auger, trowel, bowl, split spoon, etc.). A field blank is conducted using two identical sets of cleaned sample containers. One set of containers is empty and will serve as the sample containers to be analyzed. The second set of containers are filled with laboratory demonstrated analyte free water (documentation to be available upon request). At the field location this analyte free water is to be poured over the clean sample equipment and placed in the empty sample containers for analysis. Field blanks are to be handled, transported, and analyzed in the same manner as samples acquired that day. Field blanks must be performed at a rate of one per sampling day. Field blanks must be packaged with their associated matrix.

Trip blanks must be provided by contract laboratory. Trip blanks must accompany only samples which will be analyzed for volatile organics at a rate of one per shipment. Trip blanks must be filled at the laboratory with laboratory demonstrated analyte free water. Documentation that this water is analyte free must be available upon request. Contractor shall try to minimize the number of sampling days for the samples which will be analyzed for volatile organics.

Background samples are required for comparison of site conditions to the surrounding environment. Background samples shall be collected and handled in the same manner as all other samples.

The field crew will also label each sample container with the appropriate information necessary to identify the sample as listed below:

- Unique Sample Identification Number
- Date
- Time of Sampling
- Name
- Preservation
- Analyses
- Samplers Initials

This information is then supplemented and cross-referenced on a Chain-of-Custody form which provides documentation of the handling of each sample from the time it is collected until it is relinquished to the laboratory.

A Chain-of-Custody form containing the information listed below is filled out by the field crew and signed by the sampler and all personnel handling the sample(s) before the sample(s) is relinquished to the laboratory. The Chain-of-Custody form should contain the following information:

- Project Name
- Date
- Samplers Initials
- Sample Identification Number
- Time of Sample Collection
- Name/Description of Sample (Analytical Parameters)
- Preservation
- Number of Containers
- Holding Conditions and Locations
- Signature of all Handlers and Date and Time of Transfers
- Organization or Affiliation of all Handlers and Reason for Transfer

All samples will be preserved at the time of collection and packaged in coolers of sufficient size to hold all containers, ice, and packing material to prevent breakage. Cooler shall be of suitable type and integrity.

4.3 Sample Analyses

At the laboratory, receipt of samples is recorded on the Chain-of-Custody form by laboratory personnel. The original or a copy of the form is returned to the shipper. The Chain-of-Custody record is checked, by laboratory personnel, against the information on the sample container labels and other information regarding the analysis requested. If any discrepancies are discovered they are resolved with the person requesting the analysis and recorded to provide a permanent record of the event. A record of the information detailing the handling of a particular sample through each stage of analysis is provided by completing a laboratory chronicle form. This form typically provides the following information:

- Job Reference
- Sample Matrix
- Sample Number
- Date Sampled
- Date and Time Received by Laboratory
- Holding Conditions
- Analytical Parameter
- Extraction Date/Time and Extractor's Initials
- Analysis Date/Time and Analyst's Initials
- QA Batch Number, Date Reviewed and Reviewer's Initials

Analyses of samples shall be done in accordance with USEPA-Contract Lab Program Methodologies summarized in Table D.

The contract laboratory will provide sample containers for the requested analyses appropriate for each matrix to be analyzed for. The sample containers will be of sufficient size to permit replicate analyses to be run from the sample matrix. All unused portions of samples will be archived by the laboratory until written notification from AT&T Bell Laboratories regarding their disposition is received. The contract laboratory will also retain all samples and sample extracts in a sample archive for future complete analyses if requested by Bell Laboratories representative.

Calibration and periodic inspection of laboratory instruments shall be in accordance with USEPA and/or manufacturer's specifications. Reference standards and QC samples (spikes, blanks, and duplicates) will be used as necessary to determine the accuracy and precision of procedures, instruments and operators. If QC sample analysis results indicate QC values outside the control limit range, sample analysis will be suspended until the instrument is recalibrated. In general the following quality control requirements apply to all samples:

Analysis of an appropriate blank with every set.

Analysis of at least one standard at midrange concentration (preferably an additional standard near the detection level).

Annual analysis of external reference samples.

Annual analysis of split or double blind samples.

Determination of a detection limit for each method and parameter.

Laboratories must keep record of the following information:

Date, title, analytical method name and reference,
Time of analysis,
Details of methods not specified in referenced procedures,
Sample numbers,
All raw data (measurements),
Calculations,
Results,
Equipment Used and instrumental parameters, and
Analyst signature or initials.

QC data must be reported with the analytical results.

Laboratories performing analyses must provide information, upon request, on instruments employed and their procedures for evaluating and maintaining this equipment.

APPENDIX G

TYPICAL CONCENTRATIONS OF METALS IN SOILS

TYPICAL CONCENTRATIONS OF METALS IN SOILS
PREPARED BY REGION V TAT

CONCENTRATION IN SOILS (mg/kg [ppm])

ELEMENT		RANGE	TYPICAL MEDIAN	SOURCE
Aluminum	Al	10,000 - 300,000	71,000	1
Antimony	Sb	0.2 - 150	6	1, 2
Arsenic	As	0.1 - 194	11	3
Barium	Ba	100 - 3,000	500	1
Beryllium	Be	0.01 - 40	0.3	1
Boron	B	2 - 270	20	1
Bromine	Br	1 - 110	10	1
Cadmium	Cd	0.01 - 7	0.5	4
Calcium	Ca	<150 - 500,000	24,000	1, 5
Chlorine	Cl	8 - 1,800	100	1
Chromium	Cr	5 - 3,000	100	4
Cobalt	Co	0.05 - 65	8	1
Copper	Cu	2 - 250	30	1
Fluorine	F	6 - 7070	270	3
Gallium	Ga	2 - 100	20	1
Germanium	Ge	0.1 - 50	1	1
Iron	Fe	100 - 550,000	40,000	1, 3
Lanthanum	La	2 - 180	40	1
Lead	Pb	<1 - 888	29	3
Magnesium	Mg	400 - 9,000	5,000	1
Manganese	Mn	20 - 18,300	1,000	1, 3
Mercury	Hg	<0.01 - 4.6	0.098	3
Molybdenum	Mo	0.1 - 40	2	1, 4
Nickel	Ni	0.1 - 1,523	50	1, 3
Phosphorus	P	35 - 5,300	800	1
Potassium	K	80 - 37,000	14,000	1
Rubidium	Rb	20 - 1,000	150	1
Scandium	Sc	0.5 - 55	7	1
Selenium	Se	0.01 - 38	0.4	1, 4
Silicon	Si	250,000 - 410,000	330,000	1
Silver	Ag	<0.01 - 8	0.4	3
Sodium	Na	150 - 25,000	5,000	1
Strontium	Sr	<3 - 3,500	278	3
Sulfur	S	30 - 1,600	700	1
Thallium	Tl	0.1 - 0.8	0.2	1
Thorium	Th	2 - 13	9	6
Tin	Sn	1 - 200	10	1, 4
Titanium	Ti	150 - 25,000	5,000	1
Tungsten	W	0.5 - 83	1.5	1
Vanadium	V	3 - 500	100	1, 4
Yttrium	Y	<10 - 200	40	1, 5
Zinc	Zn	1 - 2,000	90	1, 3
zirconium	Zr	60 - 2,000	400	1

1. BOWEN, H.J.M., ENVIRONMENTAL CHEMISTRY OF THE ELEMENTS, ACADEMIC PRESS, NEW YORK, PP. 60-61, 1979.
2. CONNORS, J.J., SHACKLETTE, H.T., ET AL., "BACKGROUND GEOCHEMISTRY OF SOME ROCKS, SOIL, PLANTS, AND VEGETABLES IN THE CONTERMINOUS UNITED STATES," U.S. GEOLOGICAL SURVEY PROFESSIONAL PAPER 574-F, 1975.
3. URE, A. M., ET AL., "ELEMENTAL CONSTITUENTS OF SOILS," ENVIRONMENTAL CHEMISTRY 2:92-204, 1983.
4. PARR, J. F.; MARSH, P. B.; KLA, J. M. (EDS.) LAND TREATMENT OF HAZARDOUS WASTES, NOYES DATA CORPORATION, PARK RIDGE, NEW JERSEY, 1983.
5. SHACKLETTE, H.T., ET AL., "ELEMENTAL COMPOSITION OF SURFICIAL MATERIAL IN THE CONTERMINOUS UNITED STATES," UNITED STATES GEOLOGICAL SURVEY PROFESSIONAL PAPER 574-D, 1971.
6. LECHLER, T.J., ET AL., "MAJOR AND TRACE METAL ANALYSIS OF 12 REFERENCE SOILS BY INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY." SOIL SCIENCE 130:238-241, 1980.

APPENDIX H

PC SHOP WASTE ANALYTICAL RESULTS



WESTON-GULF COAST LABORATORIES, INC.

2417 Bond St., University Park, Illinois 60466

Phones: (312) 534-5200 (219) 885-7077 (815) 723-7533

August 3, 1990

Mr. Willy Pua
Roy F. Weston, Incorporated
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

Dear Mr. Pua:

Please find enclosed the analytical reports for the samples submitted to Weston/Gulf Coast laboratories for analyses. The samples were identified as follows:

Project : AT & T/Bell Lab

CLIENT ID	Lab ID	SAMPLE DATE	DATE RECEIVED
AT&T Soil Comp.#1	9006G672-001	06/28/90	06/29/90
AT&T Comp.#1 EPTOX	9006G672-002	06/28/90	06/29/90

If you have any questions, please contact Sheryl Johnson or Kate Caldwell at our laboratories.

Sincerely,

WESTON/GULF COAST LABORATORIES

John Boudreau
John Boudreau
Laboratory Manager

Michael J. Healy
Michael J. Healy
Project Manager

Mani S. Iyer
Mani S. Iyer
Metals Unit Leader

Diane L. Harper
Diane L. Harper
Wet Chemistry Unit Leader

kc

Enclosures

90066 672

WESTON
ANALOGS COMMERCIAL CONSULTANTS

Client Contact/Phone[illegible]

Special Instructions:

Regular Turn Around Time 3-4 weeks
Composite is a mixture of sands,
clay + concrete. Please provide

[illegible]

Discrepancies Between
Sample Labels and COC
Record? Y N

NOTES:

DATA QUALIFIERS

- u - Indicates an inorganic compound was analyzed for but not detected.
- U - Indicates an organic compound was analyzed for but not detected.
- J - Indicates an estimated value for either a TIC or an analyte that meets the identification criteria but the result is less than the specified detection limit.
- B - Indicates the compound was found in the blank and the sample.
- T - Indicates the compound was found in the TCLP extraction blank and the sample.
- E - Concentrations exceed calibration range of the instrument.
- I - Indicates Interference.
- BS - Indicates matrix analyses were conducted on reagent grade water.
- BSD - Blank Spike Duplicate
- BDL - Below Detection Limit
- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- D - Indicates that surrogate/matrix spike recoveries were not obtained because the extract had to be diluted for analysis.
- DL - Indicates a secondary dilution
- NA - Not Applicable
- DF - Dilution factor
- X - Result is by calculation

NOTES:

Solid, sediment and sludge results are reported on a dry weight basis except when analyzed for Landfill disposal parameters (such as incineration or Illinois Green Sheet parameters). All other mg/kg results are reported on an "as received" basis.

Reporting limits are detection limits adjusted for sample size used, dilutions made, and in the case of dry weight results, the moisture content of the sample.



WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

Attn: Mr. Willy Pua

Date: Friday August 3rd, 1990

RE: AT & T Soil Comp. #1
Project # 2400-11-01-0000
Lab ID: 9006G672-001
Sample Date: 06/28/90
Date Received: 06/29/90

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Ash	92.6	%	0.10
% Solids	94.4	%	0.10
Acidity	0.10 u	%	0.10
Alkalinity	0.17	%	0.10
Chlorine	610 u	mg/kg	610
Cyanide, Reactive	0.46 u	mg/kg X	0.46
Cyanide, Total	0.48 u	mg/kg	0.48
Flash Point	>200	DEG F	
Floatable Solids		NA	
Total Organic Carbon		NA	
Oil & Grease, Grav.	250 u	mg/kg	250
Vol Thru Filter	0.00	ML	
pH	8.0	pH	+ - 0.20
Phenol	3.0 u	mg/kg	3.0
Settleable Solids		NA	
Sulfide	4.2 u	mg/kg	4.2
Sulfide Reactive	4.2 u	mg/kg	4.2



WESTON-GULF COAST LABORATORIES, INC.
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ANALYTICAL REPORT

To: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

Attn: Mr. Willy Pua

Date: Friday August 3rd, 1990

RE: AT & T Soil Comp. #1
Project # 2400-11-01-0000
Lab ID: 9006G672-001
Sample Date: 06/28/90
Date Received: 06/29/90

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
Total Organic Halogen	613	u mg/kg	613
Silver, Total	3.2	u mg/kg	3.2
Arsenic, Total	3.6	mg/kg	1.7
Barium, Total	11.4	mg/kg	5.3
Cadmium, Total	0.42	u mg/kg	0.42
Chromium, Total	118	mg/kg	2.1
Copper, Total	344	mg/kg	2.1
Mercury, Total	0.093	u mg/kg	0.093
Nickel, Total	4.8	mg/kg	2.1
Lead, Total	16.2	mg/kg	5.3
Selenium, Total	0.84	u mg/kg	0.84
Zinc, Total	20.8	mg/kg	1.1



ROY F. WESTON
BANNOCKBURN, IL

WESTON-GULF COAST LABORATORIES, INC.

2417 Bond St., University Park, Illinois 60466

Phones: (312) 534-5200 (219) 885-7077 (815) 723-7533

Nov 12 10 09 AM '90

November 8, 1990

Mr. Steve Bosko
Roy F. Weston, Incorporated
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

Dear Mr. Bosko:

Please find enclosed the analytical reports for the samples submitted to Weston/Gulf Coast Laboratories for analyses. They were identified as follows:

Project: AT & T/Bell Lab

CLIENT ID	LAB ID#	SAMPLE DATE	DATE RECEIVED
AT&T Comp. Soil #2	9010G764-001	10/04/90	10/04/90
AT&T Comp. #2 TCLP	9010G764-002	10/04/90	10/04/90
AT&T Comp. #2 TCLV	9010G764-003	10/04/90	10/04/90

As part of the laboratory's routine quality control program, this sample was selected to be duplicated and spiked during sulfite analysis. No sulfite was detected in either duplicate. The matrix spike resulted in 31.5% recovery. When repeated, it resulted in 34.0% recovery. Although no acceptance criteria have been established for matrix spikes in this specific matrix, the low recoveries do indicate an interference may be present. All other wet chemistry quality control was within acceptance limits.

If you have any questions, please contact Jodie Bracken at our laboratories.

Sincerely,

WESTON/GULF COAST LABORATORIES

John Boudreau
John Boudreau
Laboratory Manager

Jeff A. Kaczinski
Jeff A. Kaczinski
GC/MS Unit Leader

Mani S. Iyer
Mani S. Iyer
Metals Unit Leader

Jane D. Huber
Jane D. Huber
Project Manager

Linda S. Mackley
Linda S. Mackley
Organic Unit Leader

Diane L. Harper
Diane L. Harper
Wet Chemistry Unit Leader

jvb

Enclosures

DATA QUALIFIERS

- u - Indicates an inorganic compound was analyzed for but not detected.
- U - Indicates an organic compound was analyzed for but not detected.
- J - Indicates an estimated value for either a TIC or an analyte that meets the identification criteria but the result is less than the specified detection limit.
- B - Indicates the compound was found in the blank and the sample.
- T - Indicates the compound was found in the TCLP extraction blank and the sample.
- E - Concentrations exceed calibration range of the instrument.
- I - Indicates Interference.
- BS - Indicates matrix analyses were conducted on reagent grade water.
- BSD - Blank Spike Duplicate
- BDL - Below Detection Limit
- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- D - Indicates that surrogate/matrix spike recoveries were not obtained because the extract had to be diluted for analysis.
- DL - Indicates a secondary dilution
- NA - Not Applicable
- DF - Dilution factor
- X - Result is by calculation

NOTES:

Solid, sediment and sludge results are reported on a dry weight basis except when analyzed for Landfill disposal parameters (such as incineration or Illinois Green Sheet parameters). All other mg/kg results are reported on an "as received" basis.

Reporting limits are detection limits adjusted for sample size used, dilutions made, and in the case of dry weight results, the moisture content of the sample.

WESTON Analytics Use Only

90106764

Custody Transfer Record/Lab Work Request

WESTON
MANAGEMENT CONSULTANTS

Client AT&T BELL LABS

Work Order 2400-11-01

Date Rec'd. 10/4/90 Date Due 10/18/90

RFW Contact STEVEN BOSKO

Client Contact/Phone 918-4061

[illegible]

Matrix:	W - Water	DS - Drum Solids	X - Other
S - Soil	O - Oil	DL - Drum Liquids	
SE - Sediment	A - Air	F - Fish	
SO - Solid	WI - Wipe	L - EP/TCLP Leachate	

Special Instructions: WHEEL TURNAROUND TIME

COMPOSITE IS A MIXTURE OF SANDS, CLAY + CONCRETE
PLEASE DOUBT THE CONCRETE IS NECESSARY

[illegible]

WESTON Analytics
Use Only

Samples Were:
1 Shipped or Hand-Delivered

NOTES:

2 Ambient or Chilled
NOTES:

3 Received Broken/
Leaking (Improperly
Sealed)

NOTES:

4 Properly Preserved
Y N

NOTES:

5 Received Within Holding Times

Y N
NOTES:

COC Tape Was: NH

1 Present on Outer Package	Y	N
-------------------------------	---	---

2 Unbroken on Outer Package	Y	N
-----------------------------	---	---

3 Present on Sample	Y	N
---------------------	---	---

4 Unbroken on Sample
NOTES: Y

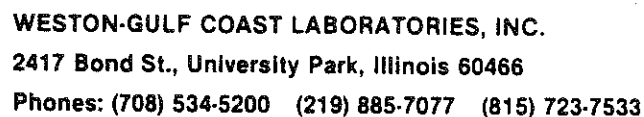
COC Record Was:

1 Present Upon Receipt
of Samples Y N

Discrepancies Between Sample Labels and COC

Record? Y N

NOTES:

[illegible]



WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorne Parkway, Suite 400
Vernon Hills, IL 60061

Date: October 23, 1990

Attn: Mr. Steve Bosko

Re: AT&T Comp. Soil #2
Project # 2400-11-01-0000
Lab ID: 9010G764-001
Sample Date: 10/04/90
Date Received: 10/04/90
Units: UG/KG

ORGANIC CLIENT DATA REPORT

Compound	Result	Detection Limit	Flag
Methylene Chloride	110	40	B
Acetone	920	130	B
Carbon Disulfide	BDL	2200	U
Trichlorofluoromethane	680	520	
Ethyl Ether	BDL	10	U
1,1,2-Trichlorotrifluorethane	110	50	
Methyl Ethyl Ketone (MEK)	BDL	65	U
1,1,1-Trichloroethane	BDL	30	U
Ethyl Acetate	BDL	40	U
Isobutanol	BDL	250	U
1,1,2-Trichloroethane	BDL	100	U
Carbon Tetrachloride	BDL	100	U
2-Nitropropane	BDL	50	U
n-Butanol	BDL	500	U
Trichloroethylene	BDL	40	U
Benzene	BDL	5	U
Cyclohexanone	BDL	400	U



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TO: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorne Parkway, Suite 400
Vernon Hills, IL 60061

Date: October 23, 1990

Attn: Mr. Steve Bosko

Re: AT&T Comp. Soil #2
Project # 2400-11-01-0000
Lab ID: 9010G764-001
Sample Date: 10/04/90
Date Received: 10/04/90
Units: UG/KG

ORGANIC CLIENT DATA REPORT

Compound	Result	Detection Limit	Flag
Methyl Isobutyl Ketone (MIBK)	BDL	25	U
Tetrachloroethylene	BDL	30	U
Toluene	BDL	5	U
Chlorobenzene	BDL	10	U
Ethylbenzene	BDL	10	U
m-Xylene	BDL	15	U
o,p-Xylene	BDL	15	U
Nitrobenzene	BDL	550	U
1,2 Dichlorobenzene	BDL	50	U
Methanol	BDL	2200	U
2-Ethoxyethanol	BDL	21000	U
Pyridine	BDL	110	U
o-Cresol	BDL	40	U
m-Cresol	BDL	40	U
p-Cresol	BDL	40	U

Parameters	Result	Units	Reporting Limit
Silver, TCLP Leachate	0.030 u	mg/L	0.030
Arsenic, TCLP Leachate	0.016 u	mg/L	0.016
Barium, TCLP Leachate	0.30	mg/L	0.050
Cadmium, TCLP Leachate	0.0040 u	mg/L	0.0040
Chromium, TCLP Leachate	0.13	mg/L	0.020
Copper, TCLP Leachate	5.3	mg/L	0.020
Mercury, TCLP Leachate	0.00020 u	mg/L	0.00020
Nickel, TCLP Leachate	0.11	mg/L	0.020
Lead, TCLP Leachate	0.063	mg/L	0.050
Selenium, TCLP Leachate	0.040 u	mg/L	0.040
Zinc, TCLP Leachate	3.3	mg/L	0.010

[illegible]



WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorne Parkway, Suite 400
Vernon Hills, IL 60061

Date: October 23, 1990

Re: Method Blank
Project # 2400-11-01-0000
Lab ID: 9010G764 Blank
Sample Date: 10/04/90
Date Received: 10/04/90
Units: UG/KG

Attn: Mr. Steve Bosko

ORGANIC CLIENT DATA REPORT

Compound	Result	Detection Limit	Flag
Methylene Chloride	20	40	J
Acetone	120	130	J
Carbon Disulfide	BDL	2200	U
Trichlorofluoromethane	BDL	520	U
Ethyl Ether	BDL	10	U
1,1,2-Trichlorotrifluorethane	BDL	50	U
Methyl Ethyl Ketone (MEK)	BDL	65	U
1,1,1-Trichloroethane	BDL	30	U
Ethyl Acetate	BDL	40	U
Isobutanol	BDL	250	U
1,1,2-Trichloroethane	BDL	100	U
Carbon Tetrachloride	BDL	100	U
2-Nitropropane	BDL	50	U
n-Butanol	BDL	500	U
Trichloroethylene	BDL	40	U
Benzene	BDL	5	U
Cyclohexanone	BDL	400	U



WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorne Parkway, Suite 400
Vernon Hills, IL 60061

Date: October 23, 1990

Re: Method Blank
Project # 2400-11-01-0000
Lab ID: 9010G764 Blank
Sample Date: 10/04/90
Date Received: 10/04/90
Units: UG/KG

Attn: Mr. Steve Bosko

ORGANIC CLIENT DATA REPORT

Compound	Result	Detection Limit	Flag
Methyl Isobutyl Ketone (MIBK)	BDL	25	U
Tetrachloroethylene	BDL	30	U
Toluene	BDL	5	U
Chlorobenzene	BDL	10	U
Ethylbenzene	BDL	10	U
m-Xylene	BDL	15	U
o,p-Xylene	BDL	15	U
Nitrobenzene	BDL	550	U
1,2 Dichlorobenzene	BDL	50	U
Methanol	BDL	2200	U
2-Ethoxyethanol	BDL	2200	U
Pyridine	BDL	110	U
o-Cresol	140	40	
m-Cresol	BDL	40	U
p-Cresol	BDL	40	U

WESTON Analytics Use Only

91036751

Custody Transfer Record/Lab Work Request



WESTON
MANAGEMENT CONSULTANTS

Client AT&T BELL LABORATORIES

Work Order 2400-11-01

Date Rec'd. 3-8-50 Date Due _____

RFW Contact STEVEN E. ROSELY

Client Contact/Phone[illegible]

Matrix:	W - Water	DS - Drum Solids	X - Other
S - Soil	O - Oil	DL - Drum Liquids	
SE - Sediment	A - Air	F - Fish	
SO - Solid	WI - Wipe	L - EP/TCLP Leachate	

Special Instructions: TOXO WEEK TURNING POINT TIME
SPECIAL DETECTION UNIT

[illegible]

WESTON Analytics
Use Only

Samples Were:

1 Shipped or Hand-Delivered

NOTES:

2 Ambient or Chilled

NOTES:

3 Received Broken/
Leaking (Improperly
Sealed)

Y

NOTES:

4 Properly Preserved

Y

NOTES:

5 Received Within Holding Times

Y

NOTES:

COC Tape Was:

1 Present on Outer
Package Y

2 Unbroken on Outer
Package Y

3 Present on Sample
Y

4 Unbroken on Sample
NOTES: Y

COC Record Was:

1 Present Upon Receipt
of Samples Y ☒ N ☐

Discrepancies Between Sample Labels and COC Record?	Y	N
---	---	---

NOTES:

Roy F. Weston, Inc. - Gulf Coast Laboratories
INORGANIC ANALYTICAL DATA PACKAGE FOR
AT & T/Bell Lab

LABORATORY CHRONICLE

DATE RECEIVED: 03/08/91

RFW LOT # :9103G751

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
---------------------	-------	-----	--------	------------	-----------	----------

AT&T Composite #3

% SOLIDS	001	S	91GTS096	03/08/91	03/11/91	03/11/91
----------	-----	---	----------	----------	----------	----------

LAB QC:

% SOLIDS	MB1	W	91GTS096	N/A	03/11/91	03/11/91
----------	-----	---	----------	-----	----------	----------

SIGNATURE

Diane L. Harper

DATE

3-14-91

Parameters	Result	Units	Reporting Limit
% Solids	91.6	%	0.10

0.10



Roy F. Weston, Inc. - Gulf Coast Laboratories
VOA ANALYTICAL DATA PACKAGE FOR
AT & T/Bell Lab

LABORATORY CHRONICLE

DATE RECEIVED: 10/04/90

RFW LOT # :9010G764

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
AT&T Comp. #2 TCLV	003	W	90GVB378	10/04/90	N/A	10/16/90
AT&T Comp. #2 TCLV	003 MS	W	90GVB378	10/04/90	N/A	10/16/90
AT&T Comp. #2 TCLV	003 MSD	W	90GVB378	10/04/90	N/A	10/16/90

LAB QC:

VBK	238	W	90GVB378	N/A	N/A	10/16/90
VBK	MB1	W	90GVB378	N/A	N/A	10/16/90
VBK	MB1 BS	W	90GVB378	N/A	N/A	10/17/90

SIGNATURE

J. A. Kazinski

DATE 4-2-91



WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

April 2, 1991

Mr. Steve Bosko
Roy F. Weston, Inc.
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

Dear Mr. Bosko:

Please find enclosed the analytical report for the samples submitted to Weston/Gulf Coast Laboratories for analysis. They were identified as follows:

PROJECT NAME: AT & T Bell Lab

RFW#: 9010G764
9103G751

If you have any questions, please contact our laboratories.

Sincerely,

WESTON/GULF COAST LABORATORIES

Jane D. Huber
Project Manager

sj

Enclosures



WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

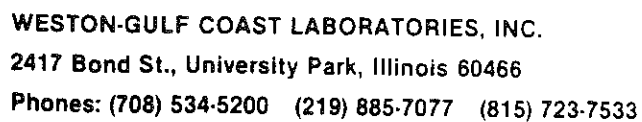
Date: March 26, 1991

Re: AT&T Composite #3
Project # 2400-11-01-0000
Lab ID: 9103G751-001
Sample Date: 03/08/91
Date Received: 03/08/91
Units: UG/KG

Attn: Mr. Steve Bosko

Organic Client Data Report

Compound	Result	Detection Limit	Flag
Methanol	1000	630	B



To: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

Re: Method Blank
Project # 2400-11-01-0000
Lab ID: 9103G751-MB
Units: UG/KG

Organic Client Data Report

Compound	Result	Detection Limit	Flag
Methanol	530	610	J



WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

DATA QUALIFIERS

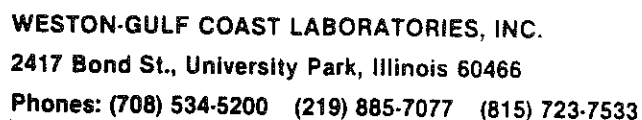
- u - Indicates an inorganic compound was analyzed for but not detected.
- U - Indicates an organic compound was analyzed for but not detected.
- J - Indicates an estimated value for either a TIC or an analyte that meets the identification criteria but the result is less than the specified detection limit.
- B - Indicates the compound was found in the blank and the sample.
- T - Indicates the compound was found in the TCLP extraction blank and the sample.
- E - Concentrations exceed calibration range of the instrument.
- I - Indicates Interference.
- BS - Indicates matrix analyses were conducted on reagent grade water.
- BSD - Blank Spike Duplicate
- BDL - Below Detection Limit
- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- D - Indicates that surrogate/matrix spike recoveries were not obtained because the extract had to be diluted for analysis.
- DL - Indicates a secondary dilution
- NA - Not Applicable
- DF - Dilution factor
- X - Result is by calculation

NOTES:

Solid, sediment and sludge results are reported on a dry weight basis except when analyzed for Landfill disposal parameters (such as incineration or Illinois Green Sheet parameters). All other mg/kg results are reported on an "as received" basis.

Reporting limits are detection limits adjusted for sample size used, dilutions made, and in the case of dry weight results, the moisture content of the sample.

Revised 02/07/90



RE: AT&T Comp. #2 TCLV
Project # 2400-11-01-0000
Lab ID: 9010G764-003
Sample Date: 10/04/90
Date Received: 10/04/90
Units: UG/L

Volatile Compound	Result	Reporting Limit	Flag
Vinyl Chloride	BDL	10	U
1,1-Dichloroethene	BDL	5	U
Chloroform	9	5	B
1,2-Dichloroethane	BDL	5	U
Carbon Tetrachloride	BDL	5	U
2-Butanone	BDL	10	U
Trichloroethene	BDL	5	U
Benzene	BDL	5	U
Tetrachloroethene	BDL	5	U
Chlorobenzene	BDL	5	U
Acetone	BDL	10	U



WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

October 10, 1991

Mr. Steve Bosko
Roy F. Weston, Incorporated
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

Dear Mr. Bosko:

Please find enclosed the analytical reports for the samples submitted to Weston/Gulf Coast Laboratories for analyses. They were identified as follows:

PROJECT: AT & T BELL LAB

RFW#: 9109G593

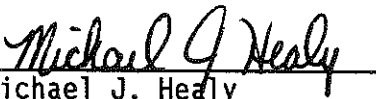
The TCLP results have been bias corrected as specified in the June 29, 1990 Federal Register. The bias correcting procedure requires analyzing each sample twice, once as extracted and once with the extract spiked with all TCLP compounds. The percent recovery of the spike sample is then used as the correction factor for the original sample extracts concentration. Analyses which are already above the hazardous limit are not bias corrected.

Note: the bias correction calculations are performed after the generation of the raw data. Therefore, the final reported result may not match the raw concentration in the instrument data.

If you have any questions, please contact our laboratories.

Sincerely,

WESTON/GULF COAST LABORATORIES


Michael J. Healy
Laboratory Manager


Jane D. Huber
Project Manager

sj

Enclosures



DATA QUALIFIERS

- B - Indicates the compound was found in the blank and the sample.
- E - Concentrations exceed calibration range of the instrument.
- I - Indicates Interference.
- J - Indicates an estimated value for either a TIC or an analyte that meets the identification criteria but the result is less than the specified detection limit.
- T - Indicates the compound was found in the TCLP extraction blank and the sample.
- u - Indicates an inorganic compound was analyzed for but not detected.
- U - Indicates an organic compound was analyzed for but not detected.
- BS - Indicates matrix analyses were conducted on reagent grade water.
- BSD - Blank Spike Duplicate
- BDL - Below Detection Limit
- D - Indicates that surrogate/matrix spike recoveries were not obtained because the extract had to be diluted for analysis.
- DL - Indicates a secondary dilution
- DF - Dilution factor
- LCS - Laboratory Control Sample
- MB - Method Blank
- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- NA - Not Applicable
- X - Result is by calculation

NOTES:

Solid, sediment and sludge results are reported on a dry weight basis except when analyzed for Landfill disposal parameters (such as incineration or Illinois Green Sheet parameters). All other mg/kg results are reported on an "as received" basis.

Reporting limits are detection limits adjusted for sample size used, dilutions made, and in the case of dry weight results, the moisture content of the sample.



Roy F. Weston, Inc. - Gulf Coast Laboratories
INORGANIC ANALYTICAL DATA PACKAGE FOR
AT & T/Bell Lab

LABORATORY CHRONICLE

DATE RECEIVED: 09/17/91

RFW LOT # :9109G593

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
---------------------	-------	-----	--------	------------	-----------	----------

S1-PC Shop Soil Disp

TCLP LEACHATE	001	S		09/16/91		09/23/91
---------------	-----	---	--	----------	--	----------

S2-PC Shop Soil Disp

TCLP	003	S		09/16/91		09/19/91
------	-----	---	--	----------	--	----------

S3-PC Shop Soil Disp

% SOLIDS	005	S	91GTS379	09/16/91	09/24/91	09/24/91
----------	-----	---	----------	----------	----------	----------

LAB QC:

% SOLIDS	MB1	W	91GTS379	N/A	09/24/91	09/24/91
----------	-----	---	----------	-----	----------	----------

SIGNATURE

Diane L. Hayden

DATE

9-30-91

0.10



WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

Date: Friday September 27th, 1991

Project # 2400-11-01-0000
Lab Batch: 9109G593

Attn: Mr. Steve Bosko

Inorganic Method Blank Data Report

Sample	Lab ID	Parameter	Result	Units	Reporting Limit
Blank 1	91GTS379-MB1	% Solids	0.10	u %	0.10



Roy F. Weston, Inc. - Gulf Coast Laboratories
VOA ANALYTICAL DATA PACKAGE FOR
AT & T/Bell Lab

LABORATORY CHRONICLE

DATE RECEIVED: 09/17/91

RFW LOT # :9109G593

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
S1-PC Shop Disp.TCLV	002	W	91GVE244	09/16/91	N/A	10/01/91
S1-PC Shop Disp.TCLV	002 MS	W	91GVE244	09/16/91	N/A	10/01/91

LAB QC:

VBLK	585	W	91GVE244	N/A	N/A	10/01/91
VBLK	MB1	W	91GVE244	N/A	N/A	10/01/91
VBLK	MB1 BS	W	91GVE244	N/A	N/A	10/01/91

SIGNATURE

Jeff A. Kazinski

DATE

10-4-91



WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

Date: Friday October 4th, 1991

RE: S1-PC Shop Disp.TCLV
Project # 2400-11-01-0000
Lab ID: 9109G593-002
Sample Date: 09/16/91
Date Received: 09/17/91
Units: UG/L

Attn: Mr. Steve Bosko

VOLATILES BY GC/MS, TCLP LEACHATE

Volatile Compound	Result	Reporting Limit	Flag
Acetone	BDL	200	U



Roy F. Weston, Inc. - Gulf Coast Laboratories
BNA ANALYTICAL DATA PACKAGE FOR
AT & T/Bell Lab

LABORATORY CHRONICLE

DATE RECEIVED: 09/17/91

RFW LOT # :9109G593

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
S2-PC Shop Disp.TCLP	004	W	91GB0425	09/16/91	09/20/91	09/25/91
S2-PC Shop Disp.TCLP	004 MS	W	91GB0425	09/16/91	09/20/91	09/25/91

LAB QC:

SBLK	MB1	W	91GB0425	N/A	09/20/91	09/25/91
SBLK	TC1	W	91GB0425	N/A	09/20/91	09/25/91
SBLK	TC2	W	91GB0425	N/A	09/20/91	09/25/91
SBLK	TC3	W	91GB0425	N/A	09/20/91	09/25/91
SBLK	TC4	W	91GB0425	N/A	09/20/91	09/25/91

SIGNATURE

J. A. Kazinski

DATE

10-1-91



Roy F. Weston, Inc. - Gulf Coast Laboratories
8015 ANALYTICAL DATA PACKAGE FOR
AT & T/Bell Lab

LABORATORY CHRONICLE

DATE RECEIVED: 09/17/91

RFW LOT # :9109G593

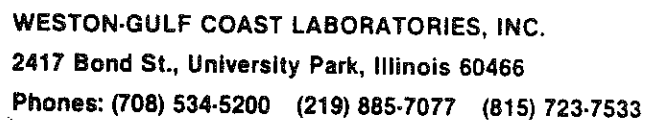
CLIENT ID	RFW #	MTX	COLLECTION	EXTR/PREP
S3-PC Shop Soil Disp	005	S	09/16/91	N/A

SIGNATURE

Linda S. Mackley

DATE

10-9-91



TO: AT & T/Bell Lab
Roy F. Weston, Incorporated
3 Hawthorn Parkway, Suite 400
Vernon Hills, IL 60061

Re: S3-PC Soil Disp
Project # 2400-11-01-0000
Lab ID: 91096593-005
Sample Date: 09/16/91
Date Received: 09/17/91
Units: MG/KG

ORGANIC CLIENT DATA REPORT

[illegible]

APPENDIX I

PC SHOP MANIFEST AND WASTE PROFILE SHEET



PLEASE PRINT OR TYPE

(Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

**UNIFORM HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.

I·L·D·0·6·8·6·0·8·3·1·4

Manifest
Document No.
0·0·0·0·1

2. Page 1
of 1

Information in the shaded areas is
not required by Federal law, but
items D, F, H and I are required by
State law.

3. Generator's Name and Mailing Address

AT & T Bell Laboratories
2000 North Naperville Road
Naperville, IL 60566

4. Generator's Phone (708) 979-4649

A. State Manifest Document Number

INA 0555985

B. State Generator's ID
0438050004

5. Transporter 1 Company Name

Ozinga Transportation Systems

6. Use EPA ID Number

I·L·D·9·8·2·0·6·7·1·7·5

C. State Transporter's ID

D. Transporter's Phone (708) 388-6257

7. Transporter 2 Company Name

8. Use EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address

Chemical Waste Management of
Indiana, Inc.
4636 Adams Center Road
Fort Wayne, IN 46806

10. Use EPA ID Number

I·N·D·0·7·8·9·1·1·1·4·6

G. State Facility's ID

H. Facility's Phone

(219) 447-5585

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

a. R.Q. Hazardous Waste, Solid, N.O.S.
ORM-E, NA 9189

12. Containers

No.

Type

13. Total
Quantity

14. Unit
Wt./Vol.

I.
Waste No.

0.0.1

C.M

000.08

Y

F001, F002
F003, F004
F005, F006

J. Additional Descriptions for Materials Listed Above

Work Order # 24481; Profile # K17981
F001, F002, F003, F004, F005, F006

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Profile: K17981 Emergency Response Guidebook #31
Emergency Contact Phone # 201-386-7161 (After hours)

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

Patrick M. Dowd

Signature

Patrick M. Dowd

Month Day Year
12 26 91

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

JOHN STUURMA

Signature

John Stuurma

Month Day Year
12 26 91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year
. . .

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted Item 19.

Printed/Typed Name

Signature

Month Day Year
. . .

Use of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the Regional Response Center at 800/424-8802 or 202/426-2675.

GENERATOR

TRANSPORTER

FACILITY

INA 0555985

R7007RPT

Chemical Waste Management, Inc.

K17901

Profile #

WASTE PROFILE

() Check here if this is a Recertification

LOCATION OF ORIGINAL CWM of Indiana, Inc.

GENERAL INFORMATION

1. Generator Name: A T & T BELL LABORATORIES Generator USEPA ID: ILD068608314

2. Generator Address: 2000 NORTH NAPERVILLE ROAD Billing Address: CLEARING DISPOSAL
() Same 3800 S. LARAMIE AVE.

NAPERVILLE IL 605667033

3. Technical Contact/Phone: PAT DOWD 708/979-4649 CICERO IL 60650

4. Alternate Contact/Phone: Billing Contact/Phone: Matt Hernandez

PROPERTIES AND COMPOSITION

5. Process Generating Waste: HAZARDOUS SOIL/CONCRETE/DEBRIS

6. Waste Name: SPILL CLEANUP

7A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes (X) No ()

B. Identify ALL USEPA listed and characteristic waste code numbers (D,P,K,F,U): F001 F002 F003 F004 F005 F006
State Waste Codes: Same as USEPA Codes

8. Physical State @ 70°F: A. Solid (X) Liquid () Both () B. Single Layer (X) Multilayer () C. Free liq. range to

9A. pH: Range 7.0 to 10.0 or Not applicable () B. Strong Odor (); describe

10. Liquid Flash Point: < 73°F () 73-99°F () 100-139°F () 140-199°F () ≥ 200°F (X) N.A. () Closed Cup (X) Open Cup ()

11. CHEMICAL COMPOSITION: List ALL constituents (incl. halogenated organics) present in any concentration and forward analysis Constituents

Constituents	Range	Units
SOIL	96 to 97	%
CONCRETE	0 to 2	%
DEBRIS	0 to 1	%
	to	
	to	
	to	
TOTAL COMPOSITION (MUST EQUAL OR EXCEED 100%):	100.000000	

12. OTHER: PCBs if yes, concentration ppm, PCBs regulated by 40 CFR 761 (). Pyrophoric () Explosive ()
Radioactive () Benzene if yes, concentration ppm. Shock Sensitive () Oxidizer ()
Carcinogen () Infectious () Other

13. If waste subject to the land ban & meets treatment standards, check here: & supply analytical results where applicable.

SHIPPING INFORMATION

14. PACKAGING: Bulk Solid (X) Bulk Liquid () Drum () Type/Size: CUBIC YARDS Other

15. ANTICIPATED ANNUAL VOLUME: 5 Units: CUBIC YARDS Shipping Frequency: YR

SAMPLING INFORMATION

16a. Sample source (drum, lagoon, pond, tank, vat, etc.): Sample Tracking Number: 0006264

Date Sampled: Sampler's Name/Company:

16b. Generator's Agent Supervising Sampling: 17. (X) No sample required (See instructions.)

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize CWM to obtain a sample from any waste shipment for purposes of recertification.

Signature

Name and Title

Date

(X) Patrick M. Dowd Patrick M. Dowd, Envr. Mgmt. Spec. 12-20-91

CLOSURE DOCUMENTATION REPORT

for

**RCRA CLOSURE OF THE
NON-ACTIVE CONTAINERIZED
WASTE STORAGE BUILDING
(BLOCK HOUSE)**

at

**AT&T BELL LABORATORIES
INDIAN HILL FACILITY
2000 NORTH NAPERVILLE ROAD
NAPERVILLE, ILLINOIS 60566**

Prepared by:

**MAECORP Incorporated
155 North Wacker Drive
Suite 400
Chicago, IL 60606**

**MAECORP Report Number
IL-7050**

Dale Montgomery
10-24-84

**Dale Montgomery, P.E.
Ill. Reg. Prof. Engineer
#62-34101**

(29)

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- I. Narrative and Chronological Summary of Closure Activities
- II. Estimated Block House Closure Cost Summary

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- Figure 1 - Property Location
- Figure 2 - Site Plan
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- A. Photo Documentation
- B. Laboratory Data
- C. Waste Manifest and Bill of Lading

**NARRATIVE AND CHRONOLOGICAL
SUMMARY OF CLOSURE ACTIVITIES**

I. NARRATIVE AND CHRONOLOGICAL SUMMARY OF CLOSURE ACTIVITIES

MAECORP Incorporated was contracted by AT&T Bell Laboratories (Indian Hill) to carry out the clean closure and closure certification of the non-active containerized waste storage building (block house), per the approved IEPA closure plan, at AT&T's Naperville, Illinois, facility. (See Figure 1 - Property Location and Figure 2 - Site Plan.)

After preparing a site health and safety plan, MAECORP mobilized on site July 6, 1989. MAECORP personnel included a response manager and two cleanup technicians. A MAECORP Illinois registered professional engineer was present to ensure the closure activities followed the approved IEPA closure plan. All MAECORP field personnel had previously received a minimum of 40 hours of safety and health training off site, plus a minimum of at least three days of actual field experience under the direct supervision of a trained and experienced supervisor. Additionally, as required, the on-site supervisor had completed at least eight additional hours of specialized training on managing hazardous waste operations and had several years of previous experience in the field.

RECEIVED
NOV 1 - 1989
IEPA-DLPC

MAECORP began by visually inspecting the conditions of the concrete surfaces of the floor and walls (see Appendix A - Photo Documentation).

Next, the 30 passive vents were covered with visqueen sheeting and duct tape. Any observed solid residue (almost none)

adhering to the concrete surfaces was scraped and scrubbed off and collected in a 55-gallon drum.

The concrete surfaces inside the building were steam-cleaned, starting at the top and working downward. Next, the surfaces were triple-rinsed with a 2,500-psi pressure washer supplied with a Quisol surfactant solution. All rinsewater was collected with a wet-dry vacuum and deposited in the same drum as the scraped residue. A grey steel cabinet remaining in the block house was also decontaminated in the same manner.

A one-quart glass jar grab sample of the rinsewater was taken by the MAECORP Response Manager from the partially filled, 55-gallon drum according to MAECORP standard sampling procedures; and, after delivery by MAECORP, was analyzed by Tenco Laboratories of Schererville, Indiana. The results are shown in Appendix B - Laboratory Data.

The disposable Level "C" and then "D" personal protective equipment was removed and deposited in another 55-gallon drum. Both partially filled drums of waste were sealed and placed in temporary storage in the permanent AT&T RCRA active containerized waste storage building (prefabricated steel building) located next to the block house.

After the surface cleaning, it was observed that some green-blue stains had appeared on the floor. A scraping sample was taken of the material, and it was found to be no more than a

surface stain. It was also noted that a very small surface crack had appeared that was not evident before cleaning.

After consultation, a decision was made to attempt removal of the stains and to determine if the crack was significant enough to notify the IEPA.

On July 20, 1989, the same MAECORP response manager, an Illinois registered professional engineer and two cleanup technicians, returned to the site. A mild acidic solution of water and hydrochloric acid was used as a floor wash. The area was rinsed twice, then rinsed with a mild baking soda and water solution, and then rinsed again with water. All of the rinse-water was collected with a wet-dry vacuum and put into another 55-gallon drum. After sampling the second partially filled drum of rinsewater, this drum was also placed in storage in the permanent RCRA drum container storage building next door. The disposable Level "C" and then "D" personal protective equipment was placed in the partially filled drum of same from July 6.

As expected, it was observed that the green-blue stains had been removed. The crack was closely examined and, after chipping away 1.5 to 2 inches, the crack appeared to end. There is no reason to believe any subsurface contamination could have occurred. The plans (see Figure 3 - Block House Design Drawing) show the concrete floor to be a minimum 6 inches thick with 4 x 4 x 4 woven wire mesh reinforcing wire at about 2 to 3 inches, tapering to a 1-foot concrete floor under all the walls of the

building with #5 steel reinforcing bars. Thus, no notice was given to the IEPA of these minor cracks until this closure certification because, per the closure plan approval letter, NO cracks, joints, or other defects were found that would allow waste to migrate through the concrete into the underlying soil in the opinion of both AT&T Bell Laboratories' Professional Engineer and MAECORP's independent professional engineer.

After MAECORP learned that the July 21 rinsate sample was not delivered to the laboratory as required because it was mistakenly believed by the MAECORP response manager to be unnecessary, another sample was taken of the second drum of rinsate, on August 9, 1989, to replace the discarded sample.

Laboratory tests on the two rinsate samples were run by Tenco Laboratories for TOX, F001, F002, F005, flash point, corrosivity, reactivity, and EP toxicity per requirements of the approved closure plan. The results are shown on the analysis sheets in Appendix B - Laboratory Data. The specific methods from U.S EPA's SW-846 Test Methods are shown in Table 1 - Laboratory Test Methods.

TABLE 1
LABORATORY TEST METHODS

<u>Parameters</u>	<u>Method No.</u>
pH	9045
Flashpoint	1010
Sulfide T & R	9030
Cyanide T & R	9010
TOX	9020
F Code Solvent	8010
	8015
	8020
EP Tox	
Arsenic	7060
Barium	7080
Cadmium	7130
Chromium	7190
Mercury	7470
Lead	7420
Selenium	7740
Silver	7760

After the laboratory analyses had shown both rinsates to be non-hazardous, disposal arrangements were made.

On August 31, 1989, all three drums of waste were picked up from the active containerized storage building and delivered directly to the disposal facility by Metropolitan Environmental Company, a licensed special waste hauler. The one, 55-gallon drum of personal protective equipment was delivered directly to Land & Lakes Landfill of 1220 South 138 Street, Chicago, Illinois, by straight bill of lading. The two partially filled, 55-gallon drums of rinsate were delivered directly as a non-hazardous special waste via Illinois manifest IL4140570 to Chem-Clear of 11800 South Stony Island Avenue, Chicago, Illinois 60617. Copies of the waste manifest and bill of lading are enclosed in Appendix C - Waste Manifest and Bill of Lading.

ESTIMATED BLOCK HOUSE CLOSURE COST SUMMARY

II. ESTIMATED BLOCK HOUSE CLOSURE COST SUMMARY*

Removal of Hazardous Wastes at Closure	*Undetermined
July 6, 1989, Decontamination	\$2,820.00
Sample Handling and Delivery	\$130.00
July 20, 1989, Stain Removal	\$1,880.00
August 9, 1989, Resampling of Drum #2 Rinsate	-0-
Laboratory Analysis of Two Samples of Rinsate	\$1,410.00
Disposal Acceptance Fees for Two Drums of Rinsate (\$420.00 each)	\$840.00
August 31, 1989, Transportation and Disposal	\$792.00
August 31, 1989, MAECORP Assistance in Disposal	\$226.00
Preparation of Closure Certification Report (includes some P.E. inspection of activities)	\$995.00
Miscellaneous (photographs, delivery, copies, etc.)	\$250.00
BLOCK HOUSE PARTIAL CLOSURE COST	\$9,343.00

* Based on estimated costs for MAECORP Incorporated (not final).

FIGURE 1
PROPERTY LOCATION

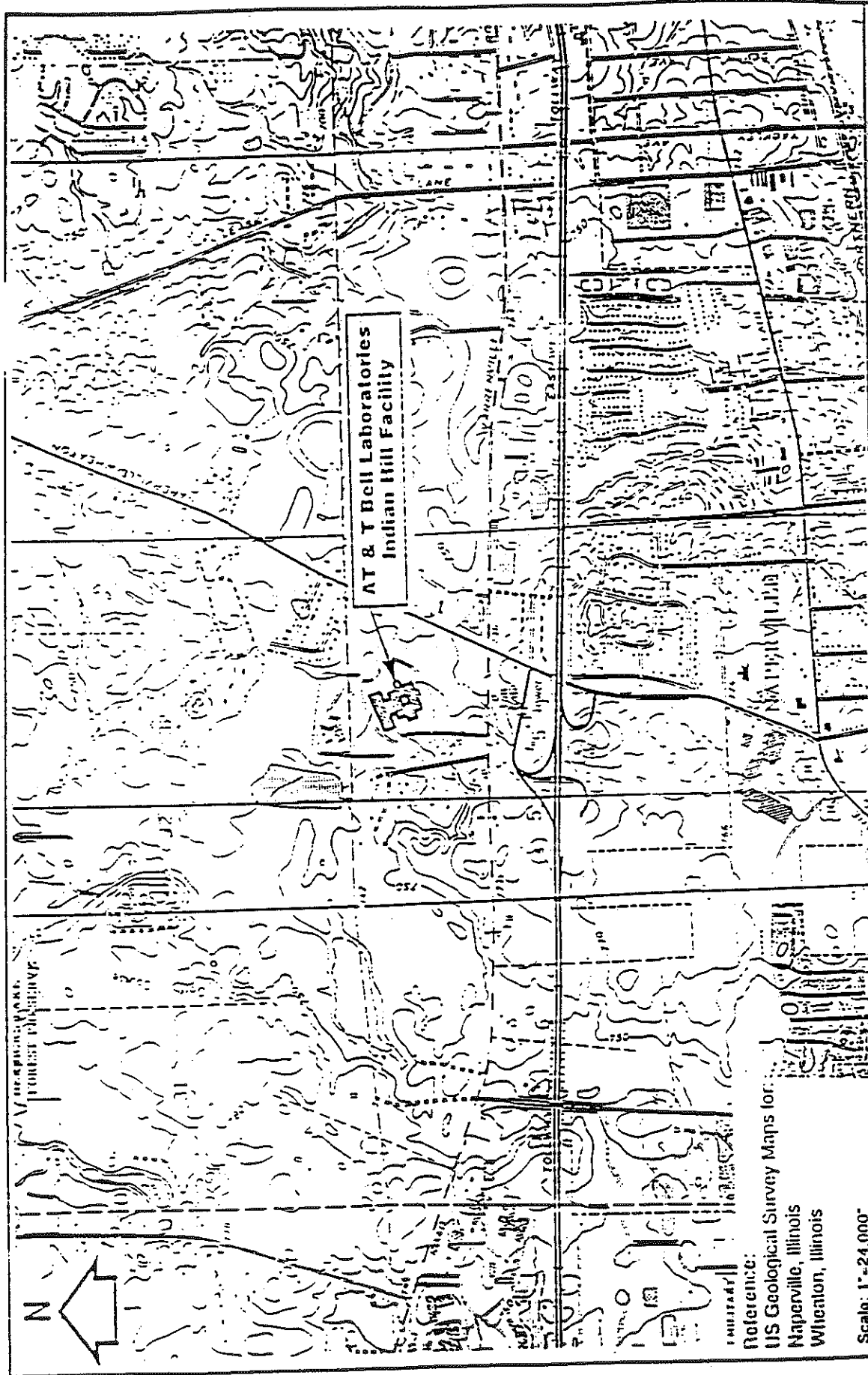


Figure 1

Property Location

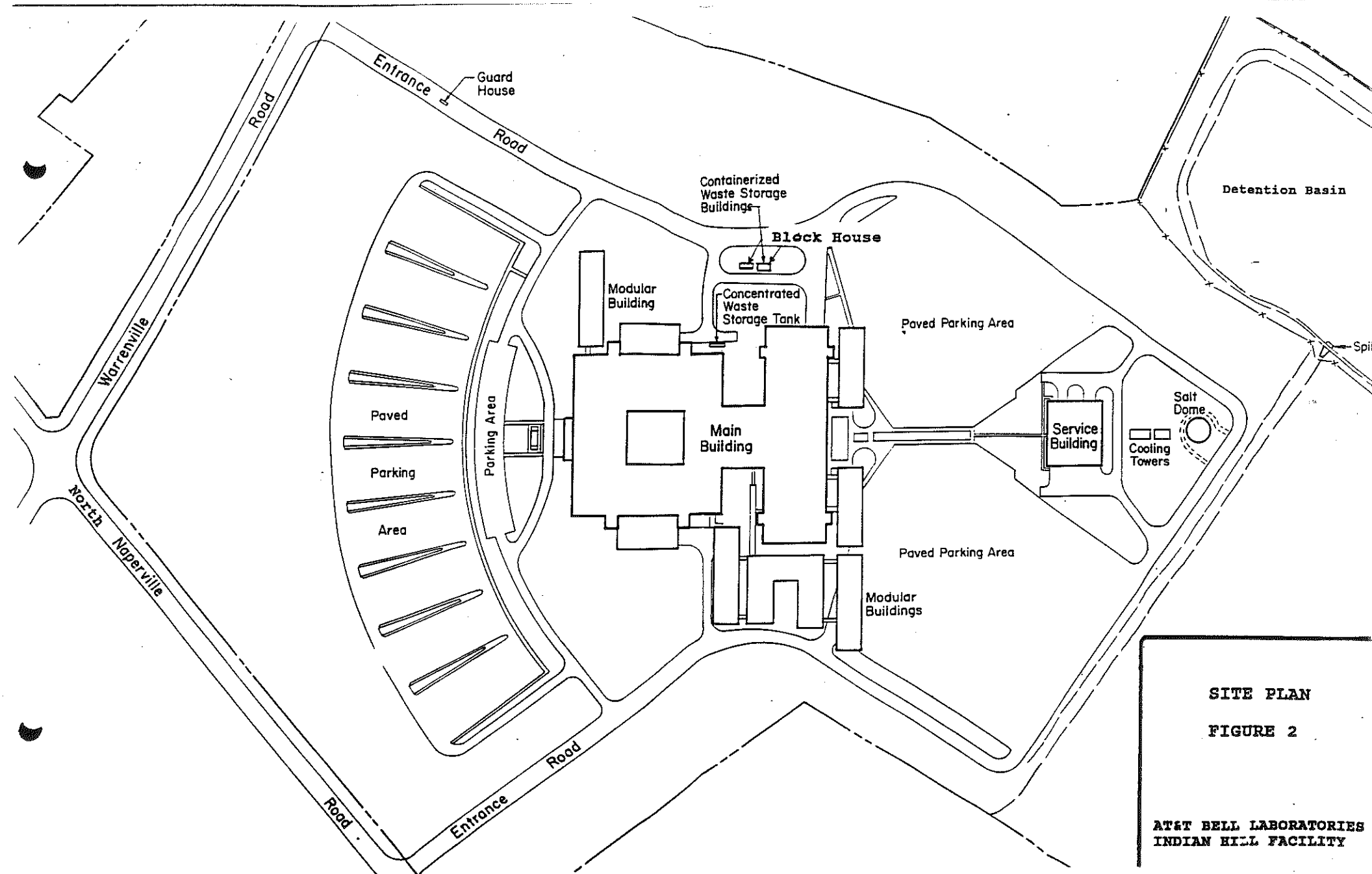
AT & T Bell Laboratories
 Indian Hill Facility - Naperville, Illinois



MAECORP
 Environmental
 Solutions

FIGURE 2

SITE PLAN



SITE PLAN

FIGURE 2

AT&T BELL LABORATORIES
INDIAN HILL FACILITY

FIGURE 3

BLOCK HOUSE DESIGN DRAWING

APPENDIX A
PHOTO DOCUMENTATION